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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/082,783	02/25/2002	John P. Havener	PAVI-25,964	4434

25883 7590 09/08/2004

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EXAMINER

BAHTA, KIDEST

ART UNIT PAPER NUMBER

2125

DATE MAILED: 09/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/082,783	<b>Applicant(s)</b> HAVENER ET AL.	
	<b>Examiner</b> Kideest Bahta	<b>Art Unit</b> 2125	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 53-80 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 53-65 is/are allowed.
- 6) ☒ Claim(s) 66-68 and 73-75 is/are rejected.
- 7) ☒ Claim(s) 69-72 and 76-80 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 73 is rejected under 35 U.S.C. 102(b) as being anticipated by Lu et al. (U.S. Patent 5,351,184).

Regarding claim 73, Lu discloses providing a dynamic model (Fig. 2); parameterizing the dynamic model based upon a move from a first portion of the input space to a second portion thereof and as a function of the final point in the input space (Fig. 3; column 4, lines 25-55).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 66-68 and 74-75 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lu et al. (U.S. Patent 5,351,184) in view of Bouchez et al. (U.S. Patent 5,424,962).

Regarding claim 66-68, Lu discloses parameterizing the operation of the dynamic model based on the determined input value (Fig. 1); predicting a dynamic move from an originating point in the first portion in the input space to a point in the input space corresponding to the defined input value (column 4, lines 25-55).

However Lu fails to disclose that a steady state optimizer; determining with the steady state optimizer an optimized input value for a desired output value; and a desired output value includes the step of processing input values through a steady state model, the steady state model representing the operation of the plant over substantially all of the operating input space of the plant.

Bouchez discloses that a steady state optimizer (Abstract); determining with the steady state optimizer an optimized input value for a desired output value (Fig. 6); and a desired output value includes the step of processing input values through a steady state model, the steady state model representing the operation of the plant over substantially all of the operating input space of the plant (column 7, lines 16-39).

Regarding claims 74-75, Lu discloses the limitations of claim 73 as stated above in Par. 2, Lu fails to disclose the limitations of claims 74-75. Bouchez discloses the limitations of claims 74-75, as follow: a steady state optimizer (Abstract); determining with the steady state optimizer an optimized input value for a desired output value (Fig. 6); and a desired output value includes the step of processing input values through a steady state model, the steady state model representing the operation of the plant over substantially all of the operating input space of the plant (column 7, lines 16-39).

Art Unit: 2125

It would have been obvious to a person of ordinary skill in the art at the time of invention was made to modify the teachings of Lu with the teachings Bouchez in order to provide a more robust controller for a process control system.

***Allowable Subject Matter***

3. Claims 69-72 and 76-80 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. Claims 53-65 are allowed.

The allowability of the independent claim 53-65 resides, at least in part, in that closest prior art of record de Lu et al. (U. S. Patent 5,351,184) does not disclose or suggest, alone or in combination, parameterizing the operation of the dynamic model with the steady state model represents the operation of the plant over substantially all of the operating input space of the plant, in combination with the other elements and features of the claimed invention.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure

Art Unit: 2125

6. Any inquiry concerning communication or earlier communication from the examiner should be directed to Kidest Bahta, whose telephone number is (703) 308-6103. The examiner can normally be reached on M-F from 7:30 a.m. to 4:00 p.m. EST. If attempts to reach the examiner by phone fail, the examiner's supervisor, Leo Picard, can be reached (703) 308-0538. Additionally, the fax phone for Art Unit 2125 is (703) 872-9306. Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist at (703) 305-9600.

Kidest Bahta

September 6, 2004

A handwritten signature in black ink, appearing to read 'Kidest Bahta', is located below the typed name and date.